CC The present sequence is human metalloproteinase ADAMTS-9. The
CC ADAMTS family of proteins is closely related to the ADAM (A Disintegrin
CC and Metalloproteinase Domain) family. Members of the ADAMTS family
CC contain a thrombospondin domain in addition to the disintegrin and
CC metalloproteinase domains found in the ADAMs. ADAMTS polypeptides are
CC useful for the manufacture of medicaments for treating conditions
CC associated with neuroinflammation and/or neurodegeneration, such as
CC Alzheimer's disease, Parkinson's disease and stroke. They are also
CC useful for treating conditions associated with cell proliferation, cell
CC migration, inflammation and/or angiogenesis, such as cancer, arthritis
CC and autoimmune diseases. They can be used to treat patients afflicted
CC with an invasive tumour, a brain tumour or brain injury.
XX
SQ Sequence 1073 AA;

Query Match 99.4%; Score 1025; DB 21; Length 1073;
Best Local Similarity 99.5%; Pred. No. 2.9e-106;
Matches 189; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```
Qy       1 LSYPRFVEVLVVADNRMVSYHGENLQHYILTLMSIVASIYKDPSIGNLINIVIVNLIVIH 60
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     289 LSYPRFVEVLVVADNRMVSYHGENLQHYILTLMSIVASIYKDPSIGNLINIVIVNLIVIH 348

Qy      61 NEQDGPSISFNAQTTLKNFCQWQHSKNSPGGIHHDTAVLLTRQDICRAHDKCDTLGLAEL 120
          |||||||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||
Db     349 NEQDGPSISFNAQTTLKNLCQWQHSKNSPGGIHHDTAVLLTRQDICRAHDKCDTLGLAEL 408

Qy     121 GTICDPYRSCSISEDSGLSTAFTIAHELGHVFNMPHDDNNKCKEEGVKSPQHVMAPTLNF 180
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     409 GTICDPYRSCSISEDSGLSTAFTIAHELGHVFNMPHDDNNKCKEEGVKSPQHVMAPTLNF 468

Qy     181 YTNPWMWSKC 190
          ||||||||||
Db     469 YTNPWMWSKC 478
```

RESULT 8
AAB72286
ID AAB72286 standard; Protein; 1882 AA.
XX
AC AAB72286;
XX
DT 14-MAY-2001 (first entry)
XX
DE Human ADAMTS-9 amino acid sequence.
XX
KW ADAMTS-N; disintegrin; metalloprotease; thrombospondin type I motif;
KW tumour cachexia; inflammation; dermatosparaxis; EDS-VIIC; angiogenesis;
KW Ehlers-Danlos syndrome type VIIC; articular cartilage erosion; human;
KW metastasis; embryogenesis; egg implantation; ADAMTS-9.
XX
OS Homo sapiens.
XX
PN WO200111074-A2.
XX
PD 15-FEB-2001.
XX
PF 03-AUG-2000; 2000WO-US21223.
XX
PR 06-AUG-1999; 99US-0369364.
XX
PA (CLEV-) CLEVELAND CLINIC FOUND.
PA (APTE/) APTE S S.
PA (HURS/) HURSKAINEN T L.
PA (HIRO/) HIROHATA S.
XX
PI Apte SS, Hurskainen TL, Hirohata S;
XX
DR WPI; 2001-159978/16.
DR [illegible]DB; AAF63443.

[illegible]man 'A Disintegrin-like And Metalloprotease domain with
[illegible]e I motifs' proteins and the nucleic acids encoding
PT them, useful for treating e.g. tumours, inflammation and arthritis -
XX
PS Claim 1; Fig 7; 181pp; English.
XX
CC This invention relates to murine and human ADAMTS-N (A disintegrin-like
CC and metalloprotease domain with thrombospondin type I motifs) proteins,
CC designated ADAMTS-5, 6, 7, 8, 9, 10 and R1. Also included in the
CC invention are cDNA sequences encoding the proteins, and antibodies
CC specific for the proteins. The nucleic acid sequences and proteins may be
CC used in the prevention, diagnosis and treatment of diseases associated
CC with inappropriate ADAMTS-N expression. Disorders that may be treated
CC using the nucleic acids, proteins and antibodies include, for example
CC tumour cachexia, inflammation, dermatosparaxis in cattle or Ehlers-Danlos
CC syndrome type VIIC (EDS-VIIC) in humans, erosion of articular cartilage
CC in arthritic (both inflammatory and non-inflammatory) disease,
CC angiogenesis, tumour growth and metastases, and they may also be used for
CC controlling embryogenesis and implantation of fertilised eggs. The
CC present sequence represents human ADAMTS-9.
XX
SQ Sequence 1882 AA;

Query Match 98.5%; Score 1015.5; DB 22; Length 1882;
Best Local Similarity 99.5%; Pred. No. 7.6e-105;
Matches 189; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

```
Qy       1 LSYPRFVEVLVVADNRMVSYHGENLQHYILTLMSIVASIYKDPSIGNLINIVIVNLIVIH 60
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     237 LSYPRFVEVLVVADNRMVSYHGENLQHYILTLMSIVASIYKDPSIGNLINIVIVNLIVIH 296

Qy      61 NEQDGPSISFNAQTTLKNFCQWQHSKNSPGGIHHDTAVLLTRQDICRAHDKCDTLGLAEL 120
          |||||||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||
Db     297 NEQDGPSISFNAQTTLKNFCQWQHS-NSPGGIHHDTAVLLTRQDICRAHDKCDTLGLAEL 355

Qy     121 GTICDPYRSCSISEDSGLSTAFTIAHELGHVFNMPHDDNNKCKEEGVKSPQHVMAPTLNF 180
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     356 GTICDPYRSCSISEDSGLSTAFTIAHELGHVFNMPHDDNNKCKEEGVKSPQHVMAPTLNF 415

Qy     181 YTNPWMWSKC 190
          ||||||||||
Db     416 YTNPWMWSKC 425
```

RESULT 9
AAB72301
ID AAB72301 standard; Protein; 1934 AA.
XX
AC AAB72301;
XX
DT 14-MAY-2001 (first entry)
XX
DE Human ADAMTS-9 alternative amino acid sequence.
XX
KW ADAMTS-N; disintegrin; metalloprotease; thrombospondin type I motif;
KW tumour cachexia; inflammation; dermatosparaxis; EDS-VIIC; angiogenesis;
KW Ehlers-Danlos syndrome type VIIC; articular cartilage erosion; human;
KW metastasis; embryogenesis; egg implantation; ADAMTS-9.
XX
OS Homo sapiens.
XX
PN WO200111074-A2.
XX
PD 15-FEB-2001.
XX
PF 03-AUG-2000; 2000WO-US21223.
XX
PR 06-AUG-1999; 99US-0369364.
XX
PA (CLEV-) CLEVELAND CLINIC FOUND.
PA (APTE/) APTE S S.
PA (HURS/) HURSKAINEN T L.
PA (HIRO/) HIROHATA S.
XX
PI Apte SS, Hurskainen TL,

```
DR   WPI; 2001-159978/16.
DR   N-PSDB; AAF63449.
XX
PT   Murine and human 'A Disintegrin-like And Metalloprotease domain with
PT   ThromboSpondin type I motifs' proteins and the nucleic acids encoding
PT   them, useful for treating e.g. tumours, inflammation and arthritis -
XX
PS   Disclosure; Fig 17; 181pp; English.
XX
CC   This invention relates to murine and human ADAMTS-N (A disintegrin-like
CC   and metalloprotease domain with thrombospondin type I motifs) proteins,
CC   designated ADAMTS-5, 6, 7, 8, 9, 10 and R1. Also included in the
CC   invention are cDNA sequences encoding the proteins, and antibodies
CC   specific for the proteins. The nucleic acid sequences and proteins may be
CC   used in the prevention, diagnosis and treatment of diseases associated
CC   with inappropriate ADAMTS-N expression. Disorders that may be treated
CC   using the nucleic acids, proteins and antibodies include, for example
CC   tumour cachexia, inflammation, dermatosparaxis in cattle or Ehlers-Danlos
CC   syndrome type VIIC (EDS-VIIC) in humans, erosion of articular cartilage
CC   in arthritic (both inflammatory and non-inflammatory) disease,
CC   angiogenesis, tumour growth and metastases, and they may also be used for
CC   controlling embryogenesis and implantation of fertilised eggs. The
CC   present sequence represents human ADAMTS-9.
XX
SQ   Sequence   1934 AA;

  Query Match             98.5%;  Score 1015.5;  DB 22;  Length 1934;
  Best Local Similarity   99.5%;  Pred. No. 7.9e-105;
  Matches  189;  Conservative    0;  Mismatches    0;  Indels    1;  Gaps    1;

Qy       1 LSYPRFVEVLVVADNRMVSYHGENLQHYILTLMSIVASIYKDPSIGNLINIVIVNLIVIH 60
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     289 LSYPRFVEVLVVADNRMVSYHGENLQHYILTLMSIVASIYKDPSIGNLINIVIVNLIVIH 348

Qy      61 NEQDGPSISFNAQTTLKNFCQWQHSKNSPGGIHHDTAVLLTRQDICRAHDKCDTLGLAEL 120
          |||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db     349 NEQDGPSISFNAQTTLKNFCQWQHS-NSPGGIHHDTAVLLTRQDICRAHDKCDTLGLAEL 407

Qy     121 GTICDPYRSCSISEDSGLSTAFTIAHELGHVFNMPHDDNNKCKEEGVKSPQHVMAPTLNF 180
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     408 GTICDPYRSCSISEDSGLSTAFTIAHELGHVFNMPHDDNNKCKEEGVKSPQHVMAPTLNF 467

Qy     181 YTNPWMWSKC 190
          ||||||||||
Db     468 YTNPWMWSKC 477


   ULT 10
AAB72287
ID   AAB72287 standard; Protein; 874 AA.
XX
AC   AAB72287;
XX
DT   14-MAY-2001  (first entry)
XX
DE   Murine ADAMTS-9 amino acid sequence.
XX
KW   ADAMTS-N; disintegrin; metalloprotease; thrombospondin type I motif;
KW   tumour cachexia; inflammation; dermatosparaxis; EDS-VIIC; angiogenesis;
KW   Ehlers-Danlos syndrome type VIIC; articular cartilage erosion; mouse;
KW   metastasis; embryogenesis; egg implantation; ADAMTS-9.
XX
OS   Mus musculus.
XX
PN   WO200111074-A2.
XX
PD   15-FEB-2001.
XX
PF   03-AUG-2000; 2000WO-US21223.
XX
PR   06-AUG-1999;   99US-0369364.
XX
PA   (CLEV-) CLEVELAND CLINIC FOUND.
PA   (APTE/) APTE S S.
PA   (HURS/) HURSKAINEN T L.
PA   (HIRO/) HIROHATA S.
XX
PI   Apte SS,  Hurskainen TL,  Hirohata S;
XX
DR   WPI; 2001-159978/16.
DR   N-PSDB; AAF63444.
XX
PT   Murine and human 'A Disintegrin-like And Metalloprotease domain with
PT   ThromboSpondin type I motifs' proteins and the nucleic acids encoding
PT   them, useful for treating e.g. tumours, inflammation and arthritis -
XX
PS   Claim 1; Fig 8; 181pp; English.
XX
CC   This invention relates to murine and human ADAMTS-N (A disintegrin-like
CC   and metalloprotease domain with thrombospondin type I motifs) proteins,
CC   designated ADAMTS-5, 6, 7, 8, 9, 10 and R1. Also included in the
CC   invention are cDNA sequences encoding the proteins, and antibodies
CC   specific for the proteins. The nucleic acid sequences and proteins may be
CC   used in the prevention, diagnosis and treatment of diseases associated
CC   with inappropriate ADAMTS-N expression. Disorders that may be treated
CC   using the nucleic acids, proteins and antibodies include, for example
CC   tumour cachexia, inflammation, dermatosparaxis in cattle or Ehlers-Danlos
CC   syndrome type VIIC (EDS-VIIC) in humans, erosion of articular cartilage
CC   in arthritic (both inflammatory and non-inflammatory) disease,
CC   angiogenesis, tumour growth and metastases, and they may also be used for
CC   controlling embryogenesis and implantation of fertilised eggs. The
CC   present sequence represents murine ADAMTS-9.
XX
SQ   Sequence   874 AA;

  Query Match             91.9%;  Score 947;  DB 22;  Length 874;
  Best Local Similarity   91.6%;  Pred. No. 1.4e-97;
  Matches  174;  Conservative    8;  Mismatches    8;  Indels    0;  Gaps    0;

Qy       1 LSYPRFVEVLVVADNRMVSYHGENLQHYILTLMSIVASIYKDPSIGNLINIVIVNLIVIH 60
          |||||||||:||||:||| ||| ||||||||||||||||||| ||||||||||||:|||
Db     128 LSYPRFVEVMVVADHRMVLYHGANLQHYILTLMSIVASIYKDSSIGNLINIVIVNLVVIH 187

Qy      61 NEQDGPSISFNAQTTLKNFCQWQHSKNSPGGIHHDTAVLLTRQDICRAHDKCDTLGLAEL 120
          |||:|| |:||||||||||||||||  ||| |||||:||:||||| ||||||||||
Db     188 NEQEGPYINFNAQTTLKNFCQWQHSKNYLGGIQHDTAVLVTREDICRAQDKCDTLGLAEL 247

Qy     121 GTICDPYRSCSISEDSGLSTAFTIAHELGHVFNMPHDDNNKCKEEGVKSPQHVMAPTLNF 180
          ||||||||||||||||||||||||||||||||||||:||||||||||||||||||||||||
Db     248 GTICDPYRSCSISEDSGLSTAFTIAHELGHVFNMPHDDSNKCKEEGVKSPQHVMAPTLNF 307

Qy     181 YTNPWMWSKC 190
          ||||||||||
Db     308 YTNPWMWSKC 317


RESULT 11
AAU77133
ID   AAU77133 standard; Protein; 1907 AA.
XX
AC   AAU77133;
XX
DT   05-JUN-2002  (first entry)
XX
DE   Human protease #12.
XX
KW   Human; protease; enzyme.
XX
OS   Homo sapiens.
XX
PN   WO200216564-A2.
XX
PD   28-FEB-2002.
XX
PF   22-AUG-2001; 2001WO-US26148.
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19-287 for domain

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XX
CC   The invention relates to an isolated human protease polypeptide (PRTS).
CC   PRTS protein and DNA are useful for diagnosing, treating and preventing
CC   gastrointestinal disorders (gastritis, cirrhosis, Crohn's disease),
CC   autoimmune/inflammatory disorders (AIDS, allergy, rheumatoid arthritis,
CC   anaemia, asthma), cardiovascular disorder (atherosclerosis, hypertension,
CC   myocardial infarction), cell proliferative disorders (hepatitis, cancer,
CC   psoriasis), developmental disorders (Cushing's syndrome, hypothyroidism),
CC   epithelial disorder (vitiligo, keloid, eczema), neurological disorders
CC   (epilepsy, Alzheimer's disease, Pick's disease, Huntington's disease,
CC   Parkinson's disease), and reproductive disorders (infertility). PRTS
CC   protein is useful in a number of drug screening techniques and to
CC   analyse the proteome of a tissue or cell type. PRTS DNA is useful for
CC   creating knockin humanised animals or transgenic animals to model human
CC   diseases, in somatic or germline gene therapy and in microarrays
CC   utilising fluids or tissues from patients to detect altered PKIN
CC   expression. The present sequence is human PRTS-10 protein. Human PRTS-10
CC   gene is located on chromosome 3.
XX
SQ   Sequence   1916 AA;

  Query Match             99.6%;  Score 1405;  DB 23;  Length 1916;
  Best Local Similarity   100.0%;  Pred. No. 4.2e-139;
  Matches  268;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2 MGSPDAAAAVRKDRLHPRQVKLLETLSEYEIVSPIRVNALGEPFPTNVHFKRTRRSINSA 61
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MGSPDAAAAVRKDRLHPRQVKLLETLSEYEIVSPIRVNALGEPFPTNVHFKRTRRSINSA 60

Qy      62 TDPWPAFASSSSSSTSSQAHYRLSAFGQQFLFNLTANAGFIAPLFTVTLLGTPGVNQTKF 121
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      61 TDPWPAFASSSSSSTSSQAHYRLSAFGQQFLFNLTANAGFIAPLFTVTLLGTPGVNQTKF 120

Qy     122 YSEEEAELKHCFYKGYVNTNSEHTAVISLCSGMLGTFRSHDGDYFIEPLQSMDEQEDEEE 181
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     121 YSEEEAELKHCFYKGYVNTNSEHTAVISLCSGMLGTFRSHDGDYFIEPLQSMDEQEDEEE 180

Qy     182 QNKPHIIYRRSAPQREPSTGRHACDTSEHKNRHSKDKKKTRARKWGERINLAGDVAALNS 241
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     181 QNKPHIIYRRSAPQREPSTGRHACDTSEHKNRHSKDKKKTRARKWGERINLAGDVAALNS 240

Qy     242 GLATEAFSAYGNKTDNTREKRTHRRTKR 269
          ||||||||||||||||||||||||||||
Db     241 GLATEAFSAYGNKTDNTREKRTHRRTKR 268


RESULT 8
AAB72301
ID   AAB72301 standard; Protein; 1934 AA.
XX
AC   AAB72301;
XX
DT   14-MAY-2001  (first entry)
XX
DE   Human ADAMTS-9 alternative amino acid sequence.
XX
KW   ADAMTS-N; disintegrin; metalloprotease; thrombospondin type I motif;
KW   tumour cachexia; inflammation; dermatosparaxis; EDS-VIIC; angiogenesis;
KW   Ehlers-Danlos syndrome type VIIC; articular cartilage erosion; human;
KW   metastasis; embryogenesis; egg implantation; ADAMTS-9.
XX
OS   Homo sapiens.
XX
PN   WO200111074-A2.
XX
PD   15-FEB-2001.
XX
[illegible]  03-AUG-2000; 2000WO-US21223.

[illegible]  UG-1999;  99US-0369364.

[illegible]  VELAND CLINIC FOUND.
[illegible]  S.

PA   (HURS/) HURSKAINEN T L.
PA   (HIRO/) HIROHATA S.
XX
PI   Apte SS,  Hurskainen TL,  Hirohata S;
XX
DR   WPI; 2001-159978/16.
DR   N-PSDB; AAF63449.
XX
PT   Murine and human 'A Disintegrin-like And Metalloprotease domain with
PT   ThromboSpondin type I motifs' proteins and the nucleic acids encoding
PT   them, useful for treating e.g. tumours, inflammation and arthritis -
XX
PS   Disclosure; Fig 17; 181pp; English.
XX
CC   This invention relates to murine and human ADAMTS-N (A disintegrin-like
CC   and metalloprotease domain with thrombospondin type I motifs) proteins,
CC   designated ADAMTS-5, 6, 7, 8, 9, 10 and R1. Also included in the
CC   invention are cDNA sequences encoding the proteins, and antibodies
CC   specific for the proteins. The nucleic acid sequences and proteins may be
CC   used in the prevention, diagnosis and treatment of diseases associated
CC   with inappropriate ADAMTS-N expression. Disorders that may be treated
CC   using the nucleic acids, proteins and antibodies include, for example
CC   tumour cachexia, inflammation, dermatosparaxis in cattle or Ehlers-Danlos
CC   syndrome type VIIC (EDS-VIIC) in humans, erosion of articular cartilage
CC   in arthritic (both inflammatory and non-inflammatory) disease,
CC   angiogenesis, tumour growth and metastases, and they may also be used for
CC   controlling embryogenesis and implantation of fertilised eggs. The
CC   present sequence represents human ADAMTS-9.
XX
SQ   Sequence   1934 AA;

  Query Match             99.1%;  Score 1398;  DB 22;  Length 1934;
  Best Local Similarity   99.3%;  Pred. No. 2.4e-138;
  Matches  267;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1 EMGSPDAAAAVRKDRLHPRQVKLLETLSEYEIVSPIRVNALGEPFPTNVHFKRTRRSINS 60
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      19 EMGSPDAAAAVRKDRLHPRQVKLLETLSEYEIVSPIRVNALGEPPPTNVHFKRTRRSINS 78

Qy      61 ATDPWPAFASSSSSSTSSQAHYRLSAFGQQFLFNLTANAGFIAPLFTVTLLGTPGVNQTK 120
          ||||||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||
Db      79 ATDPWPAFASSSSSSTSPQAHYRLSAFGQQFLFNLTANAGFIAPLFTVTLLGTPGVNQTK 138

Qy     121 FYSEEEAELKHCFYKGYVNTNSEHTAVISLCSGMLGTFRSHDGDYFIEPLQSMDEQEDEE 180
          |||||||||||||||||||||||||||||||||||||||||| ||||||||||||||||||
Db     139 FYSEEEAELKHCFYKGYVNTNSEHTAVISLCSGMLGTFRSHDGGYFIEPLQSMDEQEDEE 198

Qy     181 EQNKPHIIYRRSAPQREPSTGRHACDTSEHKNRHSKDKKKTRARKWGERINLAGDVAALN 240
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     199 EQNKPHIIYRRSAPQREPSTGRHACDTSEHKNRHSKDKKKTRARKWGERINLAGDVAALN 258

Qy     241 SGLATEAFSAYGNKTDNTREKRTHRRTKR 269
          ||||||||||||||||||||||||||||
Db     259 SGLATEAFSAYGNKTDNTREKRTHRRTKR 287


RESULT 9
ABG30702
ID   ABG30702 standard; Protein; 1602 AA.
XX
AC   ABG30702;
XX
DT   07-OCT-2002  (first entry)
XX
DE   Human aggrecanase polypeptide #1.
XX
KW   Human; aggrecanase; enzyme; computer aided drug design; osteoarthritis;
KW   aggrecan; genetic disorder; proteolytic activity; articular cartilage;
KW   osteopathic; antiarthritic.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
```

KW Ehlers-Danlos syndrome type VIIC; articular cartilage erosion; human;
KW metastasis; embryogenesis; egg implantation; ADAMTS-9.
XX
OS Homo sapiens.
XX
PN WO200111074-A2.
XX
PD 15-FEB-2001.
XX
PF 03-AUG-2000; 2000WO-US21223.
XX
PR 06-AUG-1999; 99US-0369364.
XX
PA (CLEV-) CLEVELAND CLINIC FOUND.
PA (APTE/) APTE S S.
PA (HURS/) HURSKAINEN T L.
PA (HIRO/) HIROHATA S.
XX
PI Apte SS, Hurskainen TL, Hirohata S;

WPI; 2001-159978/16.
N-PSDB; AAF63449.
XX
PT Murine and human 'A Disintegrin-like And Metalloprotease domain with
PT ThromboSpondin type I motifs' proteins and the nucleic acids encoding
PT them, useful for treating e.g. tumours, inflammation and arthritis -
XX
PS Disclosure; Fig 17; 181pp; English.
XX
CC This invention relates to murine and human ADAMTS-N (A disintegrin-like
CC and metalloprotease domain with thrombospondin type I motifs) proteins,
CC designated ADAMTS-5, 6, 7, 8, 9, 10 and R1. Also included in the
CC invention are cDNA sequences encoding the proteins, and antibodies
CC specific for the proteins. The nucleic acid sequences and proteins may be
CC used in the prevention, diagnosis and treatment of diseases associated
CC with inappropriate ADAMTS-N expression. Disorders that may be treated
CC using the nucleic acids, proteins and antibodies include, for example
CC tumour cachexia, inflammation, dermatosparaxis in cattle or Ehlers-Danlos
CC syndrome type VIIC (EDS-VIIC) in humans, erosion of articular cartilage
CC in arthritic (both inflammatory and non-inflammatory) disease,
CC angiogenesis, tumour growth and metastases, and they may also be used for
CC controlling embryogenesis and implantation of fertilised eggs. The
CC present sequence represents human ADAMTS-9.
XX
SQ Sequence 1934 AA;

Query Match 98.6%; Score 8989.5; DB 22; Length 1934;
Best Local Similarity 99.3%; Pred. No. 0;
Matches 1612; Conservative 2; Mismatches 8; Indels 1; Gaps 1;

```
Qy       1 MQFVSWATLLTLLVRDLAEMGSPDAAAAVRKDRLHPRQVKLLETLSEYEIVSPIRVNALG 60
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MQFVSWATLLTLLVRDLAEMGSPDAAAAVRKDRLHPRQVKLLETLSEYEIVSPIRVNALG 60

Qy      61 EPFPTNVHFKRTRRSINSATDPWPAFASSSSSSTSSQAHYRLSAFGQQFLFNLTANAGFI 120
          |||||||||||||||||||||||||||||||| ||||||||||||||||||||||||||||
Db      61 EPFPTNVHFKRTRRSINSATDPWPAFASSSSSSTSPQAHYRLSAFGQQFLFNLTANAGFI 120

Qy     121 APLFTVTLLGTPGVNQTKFYSEEEAELKHCFYKGYVNTNSEHTAVISLCSGMLGTFRSHD 180
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     121 APLFTVTLLGTPGVNQTKFYSEEEAELKHCFYKGYVNTNSEHTAVISLCSGMLGTFRSHD 180

Qy     181 GDYFIEPLQSMDEQEDEEEQNKPHIIYRRSAPQREPSTGRHACDTSEHKNRHSKDKKKTR 240
          | ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     181 GGYFIEPLQSMDEQEDEEEQNKPHIIYRRSAPQREPSTGRHACDTSEHKNRHSKDKKKTR 240

Qy     241 ARKWGERINLAGDVAALNSGLATEAFSAYGNKTDNTREKRTHRRTKRFLSYPRFVEVLVV 300
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     241 ARKWGERINLAGDVAALNSGLATEAFSAYGNKTDNTREKRTHRRTKRFLSYPRFVEVLVV 300

Qy     301 RMVSYHGENLQHYILTLMSIVASIYKDPSIGNLINIVIVNLIVIHNEQDGPSISFNA 360
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     301 RMVSYHGENLQHYILTLMSIVASIYKDPSIGNLINIVIVNLIVIHNEQDGPSISFNA 360

Qy     361 QTTLKNFCQWQHSKNSPGGIHHDTAVLLTRQDICRAHDKCDTLGLAELGTICDPYRSCSI 420
          |||||||||||| ||||||||||||||||||||||||||||||||||||||||||||||||
Db     361 QTTLKNFCQWQHS-NSPGGIHHDTAVLLTRQDICRAHDKCDTLGLAELGTICDPYRSCSI 419

Qy     421 SEDSGLSTAFTIAHELGHVFNMPHDDNNKCKEEGVKSPQHVMAPTLNFYTNPWMWSKCSR 480
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     420 SEDSGLSTAFTIAHELGHVFNMPHDDNNKCKEEGVKSPQHVMAPTLNFYTNPWMWSKCSR 479

Qy     481 KYITEFLDTGYGECLLNEPESRPYPLPVQLPGILYNVNKQCELIFGPGSQVCPYMMQCRR 540
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     480 KYITEFLDTGYGECLLNEPESRPYPLPVQLPGILYNVNKQCELIFGPGSQVCPYMMQCRR 539

Qy     541 LWCNNVNGVHKGCRTQHTPWADGTECEPGKHCKYGFCVPKEMDVPVTDGSWGSWSPFGTC 600
          || ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     540 LWSNNVNGVHKGCRTQHTPWADGTECEPGKHCKYGFCVPKEMDVPVTDGSWGSWSPFGTC 599

Qy     601 SRTCGGGIKTAIRECNRPEPKNGGKYCVGRRMKFKSCNTEPCLKQKRDFRDEQCAHFDGK 660
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     600 SRTCGGGIKTAIRECNRPEPKNGGKYCVGRRMKFKSCNTEPCLKQKRDFRDEQCAHFDGK 659

Qy     661 HFNINGLLPNVRWVPKYSGILMKDRCKLFCRVAGNTAYYQLRDRVIDGTPCGQDTNDICV 720
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     660 HFNINGLLPNVRWVPKYSGILMKDRCKLFCRVAGNTAYYQLRDRVIDGTPCGQDTNDICV 719

Qy     721 QGLCRQAGCDHVLNSKARRDKCGVCGGDNSSCKTVAGTFNTVHYGYNTVVRIPAGATNID 780
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     720 QGLCRQAGCDHVLNSKARRDKCGVCGGDNSSCKTVAGTFNTVHYGYNTVVRIPAGATNID 779

Qy     781 VRQHSFSGETDDDNYLALSSSKGEFLLNGNFVVTMAKREIRIGNAVVEYSGSETAVERIN 840
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     780 VRQHSFSGETDDDNYLALSSSKGEFLLNGNFVVTMAKREIRIGNAVVEYSGSETAVERIN 839

Qy     841 STDRIEQELLLQVLSVGKLYNPDVRYSFNIPIEDKPQQFYWNSHGPWQACSKPCQGERKR 900
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     840 STDRIEQELLLQVLSVGKLYNPDVRYSFNIPIEDKPQQFYWNSHGPWQACSKPCQGERKR 899

Qy     901 KLVCTRESDQLTVSDQRCDRLPQPGHITEPCGTDCDLRWHVASRSECSAQCGLGYRTLDI 960
          ||||||||||||||||||||||||||||||| ||||||||||||||||||||||||||||||
Db     900 KLVCTRESDQLTVSDQRCDRLPQPGHITEPCGTGCDLRWHVASRSECSAQCGLGYRTLDI 959

Qy     961 YCAKYSRLDGKTEKVDDGFCSSHPKPSNREKCSGECNTGGWRYSAWTECSKSCDGGTQRR 1020
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     960 YCAKYSRLDGKTEKVDDGFCSSHPKPSNREKCSGECNTGGWRYSAWTECSKSCDGGTQRR 1019

Qy    1021 RAICVNTRNDVLDDSKCTHQEKVTIQRCSEFPCPQWKSGDWSECLVTCGKGHKHRQVWCQ 1080
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    1020 RAICVNTRNDVLDDSKCTHQEKVTIQRCSEFPCPQWKSGDWSECLVTCGKGHKHRQVWCQ 1079

Qy    1081 FGEDRLNDRMCDPETKPTSMQTCQQPECASWQAGPWGQCSVTCGQGYQLRAVKCIIGTYM 1140
          |||||||||||||||||||||||||||| |||||||| ||||||||||||||||||||||||
Db    1080 FGEDRLNDRMCDPETKPTSMQTCQQPEMASWQAGPWVQCSVTCGQGYQLRAVKCIIGTYM 1139

Qy    1141 SVVDDNDCNAATRPTDTQDCELPSCHPPPAAPETRRSTYSAPRTQWRFGSWTPCSATCGK 1200
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    1140 SVVDDNDCNAATRPTDTQDCELPSCHPPPAAPETRRSTYSAPRTQWRFGSWTPCSATCGK 1199

Qy    1201 GTRMRYVSCRDENGSVADESACATLPRPVAKEECSVTPCGQWKALDWSSCSVTCGQGRAT 1260
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    1200 GTRMRYVSCRDENGSVADESACATLPRPVAKEECSVTPCGQWKALDWSSCSVTCGQGRAT 1259

Qy    1261 RQVMCVNYSDHVIDRSECDQDYIPETDQDCSMSPCPQRTPDSGLAQHPFQNEDYRPRSAS 1320
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    1260 RQVMCVNYSDHVIDRSECDQDYIPETDQDCSMSPCPQRTPDSGLAQHPFQNEDYRPRSAS 1319

Qy    1321 PSRTHVLGGNQWRTGPWGACSSTCAGGSQRRVVVCQDENGYTANDCVERIKPDEQRACES 1380
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    1320 PSRTHVLGGNQWRTGPWGACSSTCAGGSQRRVVVCQDENGYTANDCVERIKPDEQRACES 1379

Qy    1381 GPCPQWAYGNWGECTKLCGGGIRTRLVVCQRSNGERFPDLSCEILDKPPDREQCNTHACP 1440
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    1380 GPCPQWAYGNWGECTKLCGGGIRTRLVVCQRSNGERFPDLSCEILDKPPDREQCNTHACP 1439
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          HDAAWSTGPWSSCSVSCGRGHKQRNVYCMAKDGSHLESDYCKHLAKPHGHRKCRGGRCPK 1500
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
      1440 HDAAWSTGPWSSCSVSCGRGHKQRNVYCMAKDGSHLESDYCKHLAKPHGHRKCRGGRCPK 1499

Qy    1501 WKAGAWSQCSVSCGRGVQQRHVGCQIGTHKIARETECNPYTRPESERDCQGPRCPLYTWR 1560
           ||||||||||||||||||||||||||||||||:||||||||||| :|||||||||||||
Db    1500 WKAGAWSQCSVSCGRGVQQRHVGCQIGTHKIARDTECNPYTRPESECECQGPRCPLYTWR 1559

Qy    1561 AEEWQECTKTCGEGSRYRKVVCVDDNKNEVHGARCDVSKRPVDRESCSLQPCEYVWITGE 1620
           ||| ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    1560 AEESQECTKTCGEGSRYRKVVCVDDNKNEVHGARCDVSKRPVDRESCSLQPCEYVWITGE 1619

Qy    1621 WSE 1623
           |||
Db    1620 WSE 1622


RESULT 5
AAE19173
AAE19173 standard; Protein; 1916 AA.

AC   AAE19173;
XX
DT   21-MAY-2002  (first entry)
XX
DE   Human protease, PRTS-10 protein.
XX
KW   Human; protease; PRTS-10; enzyme; gastritis; cirrhosis; Crohn's disease;
KW   gastrointestinal disorder; autoimmune; inflammatory; cell proliferative;
KW   cardiovascular; developmental; epithelial; neurological; reproductive;
KW   AIDS; Acquired Immune Deficiency Syndrome; allergy; rheumatoid arthritis;
KW   anaemia; asthma; atherosclerosis; hypertension; myocardial infarction;
KW   hepatitis; cancer; psoriasis; Cushing's syndrome; hypothyroidism; eczema;
KW   epilepsy; Alzheimer's disease; Huntington's disease; Parkinson's disease;
KW   Pick's disease; infertility; vitiligo; drug screening; gene therapy;
KW   chromosome 3.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Domain          570..623
FT                   /note= "Thrombospondin type I domain"
FT   Domain          1313..1364
FT                   /note= "Thrombospondin type I domain"
FT   Domain          1426..1479
FT                   /note= "Thrombospondin type I domain"
XX
PN   WO200208396-A2.
XX
PD   31-JAN-2002.
XX
PF   17-JUL-2001; 2001WO-US22397.
XX
PR   21-JUL-2000; 2000US-220063P.
PR   28-JUL-2000; 2000US-221680P.
PR   04-AUG-2000; 2000US-223544P.
PR   11-AUG-2000; 2000US-224717P.
PR   16-AUG-2000; 2000US-225988P.
PR   23-AUG-2000; 2000US-227568P.
XX
PA   (INCY-) INCYTE GENOMICS INC.
XX
PI   Delegeane AM,  Gandhi AR,  Hafalia AJA,  Lu DAM,  Patterson C;
PI   Tribouley CM,  Das D,  Kallick DA,  Nguyen DB,  Lee EA,  Khan FA;
PI   Yue H,  Au-Young J,  Griffin JA,  Policky JL,  Ramkumar J,  Yang J;
PI   Thangavelu K,  Ding L,  Kearney L,  Baughn MR,  Borowsky ML;
PI   Sanjanwala MS,  Yao MG,  Burford N,  Walia NK,  Lal P,  Lee S,  Todd S;
PI   Lo TP,  Tang YT,  Elliott VS,  Azimzai Y,  Lu Y;
XX
DR   WPI; 2002-206082/26.
DR   N-PSDB; AAD30577.
XX
PT   New human protease polypeptide, useful in diagnosis, prevention and
PT   treatment of gastrointestinal, cardiovascular, autoimmune/inflammatory,
PT   cell proliferative, developmental, epithelial and neurological
PT   disorders  -
XX
PS   Claim 1; Page 143-147; 182pp; English.
XX
CC   The invention relates to an isolated human protease polypeptide (PRTS).
CC   PRTS protein and DNA are useful for diagnosing, treating and preventing
CC   gastrointestinal disorders (gastritis, cirrhosis, Crohn's disease),
CC   autoimmune/inflammatory disorders (AIDS, allergy, rheumatoid arthritis,
CC   anaemia, asthma), cardiovascular disorder (atherosclerosis, hypertension,
CC   myocardial infarction), cell proliferative disorders (hepatitis, cancer,
CC   psoriasis), developmental disorders (Cushing's syndrome, hypothyroidism),
CC   epithelial disorder (vitiligo, keloid, eczema), neurological disorders
CC   (epilepsy, Alzheimer's disease, Pick's disease, Huntington's disease,
CC   Parkinson's disease), and reproductive disorders (infertility). PRTS
CC   protein is useful in a number of drug screening techniques and to
CC   analyse the proteome of a tissue or cell type. PRTS DNA is useful for
CC   creating knockin humanised animals or transgenic animals to model human
CC   diseases, in somatic or germline gene therapy and in microarrays
CC   utilising fluids or tissues from patients to detect altered PKIN
CC   expression. The present sequence is human PRTS-10 protein. Human PRTS-10
CC   gene is located on chromosome 3.
XX
SQ   Sequence   1916 AA;

  Query Match             98.6%;  Score 8985;  DB 23;  Length 1916;
  Best Local Similarity   99.9%;  Pred. No. 0;
  Matches 1603;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      20 MGSPDAAAAVRKDRLHPRQVKLLETLSEYEIVSPIRVNALGEPFPTNVHFKRTRRSINSA 79
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MGSPDAAAAVRKDRLHPRQVKLLETLSEYEIVSPIRVNALGEPFPTNVHFKRTRRSINSA 60

Qy      80 TDPWPAFASSSSSSTSSQAHYRLSAFGQQFLFNLTANAGFIAPLFTVTLLGTPGVNQTKF 139
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      61 TDPWPAFASSSSSSTSSQAHYRLSAFGQQFLFNLTANAGFIAPLFTVTLLGTPGVNQTKF 120

Qy     140 YSEEEAELKHCFYKGYVNTNSEHTAVISLCSGMLGTFRSHDGDYFIEPLQSMDEQEDEEE 199
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     121 YSEEEAELKHCFYKGYVNTNSEHTAVISLCSGMLGTFRSHDGDYFIEPLQSMDEQEDEEE 180

Qy     200 QNKPHIIYRRSAPQREPSTGRHACDTSEHKNRHSKDKKKTRARKWGERINLAGDVAALNS 259
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     181 QNKPHIIYRRSAPQREPSTGRHACDTSEHKNRHSKDKKKTRARKWGERINLAGDVAALNS 240

Qy     260 GLATEAFSAYGNKTDNTREKRTHRRTKRFLSYPRFVEVLVVADNRMVSYHGENLQHYILT 319
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     241 GLATEAFSAYGNKTDNTREKRTHRRTKRFLSYPRFVEVLVVADNRMVSYHGENLQHYILT 300

Qy     320 LMSIVASIYKDPSIGNLINIVIVNLIVIHNEQDGPSISFNAQTTLKNFCQWQHSKNSPGG 379
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     301 LMSIVASIYKDPSIGNLINIVIVNLIVIHNEQDGPSISFNAQTTLKNFCQWQHSKNSPGG 360

Qy     380 IHHDTAVLLTRQDICRAHDKCDTLGLAELGTICDPYRSCSISEDSGLSTAFTIAHELGHV 439
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     361 IHHDTAVLLTRQDICRAHDKCDTLGLAELGTICDPYRSCSISEDSGLSTAFTIAHELGHV 420

Qy     440 FNMPHDDNNKCKEEGVKSPQHVMAPTLNFYTNPWMWSKCSRKYITEFLDTGYGECLLNEP 499
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     421 FNMPHDDNNKCKEEGVKSPQHVMAPTLNFYTNPWMWSKCSRKYITEFLDTGYGECLLNEP 480

Qy     500 ESRPYPLPVQLPGILYNVNKQCELIFGPGSQVCPYMMQCRRLWCNNVNGVHKGCRTQHTP 559
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     481 ESRPYPLPVQLPGILYNVNKQCELIFGPGSQVCPYMMQCRRLWCNNVNGVHKGCRTQHTP 540

Qy     560 WADGTECEPGKHCKYGFCVPKEMDVPVTDGSWGSWSPFGTCSRTCGGGIKTAIRECNRPE 619
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     541 WADGTECEPGKHCKYGFCVPKEMDVPVTDGSWGSWSPFGTCSRTCGGGIKTAIRECNRPE 600

Qy     620 PKNGGKYCVGRRMKFKSCNTEPCLKQKRDFRDEQCAHFDGKHFNINGLLPNVRWVPKYSG 679
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     601 PKNGGKYCVGRRMKFKSCNTEPCLKQKRDFRDEQCAHFDGKHFNINGLLPNVRWVPKYSG 660
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